

16P319

(Pages: 2)

Name.....

Reg. No.....

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, OCTOBER 2017

(Regular/Supplementary/Improvement)

(CUCSS - PG)

CC15P ES3 C16 – ECOSYSTEMS AND GLOBAL CLIMATE CHANGE

(Environmental Science)

(2015 Admission Onwards)

Time : Three Hours

Maximum : 36 Weightage

I. Answer *all* questions. Each question carries **1** weightage

1. GHGs
2. What is sub adiabatic lapse rate?
3. What are aerological diagrams?
4. Define Coriolis force.
5. Wetlands
6. Sea breeze and land breeze
7. Wind roses
8. What is carbon trading?
9. Define stratospheric ozone.
10. Reflection Coefficient
11. Walker circulation
12. Trade winds
13. Equinoxes and Solstices
14. Montreal Protocol

(14 x 1 = 14 weightage)

II. Answer *any seven* questions. Each question carries **2** weightage

15. Write a note on Earth's geological time scale.
16. Explain the role of forests in carbon sequestration.
17. Define palaeoclimatology. What are the principle sources of proxy data on Earth's climate?
18. Write a note on atmospheric stability.
19. Explain the thermal stratification of atmosphere.
20. Differentiate radiative and non-radiative forcing of climate change
21. Explain ENSO.
22. What is atmospheric scattering? Mention the types of scattering.

23. What are ozone hole. Explain ozone depletion over Antarctica.

24. Give an account on Earth's systems and their interrelations.

(7 x 2 = 14 weightage)

III. Write an essay on *any two* of the following. Each question carries **4** weightage

25. Discuss the effects of global warming on lithosphere, hydrosphere and biosphere systems.

26. Are human activities causing climate change? Illustrate with appropriate examples.

27. Give an account on global environmental protection movements with respect to climate change.

28. Define solar constant. Write an essay on energy budget of the Earth surface.

(2 x 4 = 8 weightage)
